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EXAMINER

KANG, PAUL H

ART UNIT	PAPER NUMBER
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2144

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/29/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/588,027

Applicant(s)

CIESLAK ET AL.

Examiner

Paul H. Kang

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 October 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 June 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-11 and 16-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heddaya et al., US Pat. No. 6,205,481 in view of Balassanian, US Pat. Application No. 2005/0021857 A1.

2. As to claims 1, 16, 20, 21, 22 and 23, Heddaya teaches the invention substantially as claimed. Heddaya teaches a computer-implemented method for routing data traffic in a network having a plurality of network layers including an application layer, physical, data link, and network layers, the method comprising:

receiving redirected data traffic at a network cache (Heddaya, col. 3, line 23 – col. 5, line 22).

However, Heddaya does not explicitly teach selecting one of a plurality of routing options for the data traffic with reference to information associated with the network cache, the application layer, or outside of the physical, data link, and network layers; and routing the data traffic according to the selected routing option, wherein the routing includes forwarding the data traffic from the network cache to another network device in the network.

In the same field of endeavor, Balassanian teaches routing based on information associated with the network cache, the application layer, or outside of the physical, data link, and network layers; and routing the data traffic according to the selected routing option (Balassanian, paragraph 0040-0045);

wherein the routing includes forwarding the data traffic from the network cache to another network device in the network (a user transmits data to a gateway interface. The gateway interface then determines to which device to forward the data traffic to various devices on the LAN based on the content type, i.e. all video traffic may be routed to a particular computer or any other device on the LAN; Balassanian, paragraph 0048-0049, 0059-0062).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated the method of routing based on information in the application layer, such as document type (e.g. jpg, htm, gif), as taught by Balassanian, into the networked cache system of Heddaya for the purpose of routing data based on data content in addition to destination addresses.

3. As to claim 2, Heddaya-Balassanian teaches the method wherein the data traffic has been redirected from an original destination according to a caching protocol (Heddaya, col. 3, line 23 – col. 5, line 22).

4. As to claim 3, Heddaya-Balassanian teaches the method wherein the data traffic comprises a request from a source platform to a destination platform (Heddaya, col. 3, line 23 –

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col. 5, line 22).

5. As to claim 4, Heddaya-Balassanian teaches the method wherein the data traffic comprises a response to a request, the request being from a source platform to a destination platform (Heddaya, col. 3, line 23 – col. 5, line 22).

6. As to claim 5, Heddaya-Balassanian teaches the method further comprising parsing the information associated with the application layer (Balassanian, paragraph 0040-0045).

7. As to claims 6 and 7, Heddaya-Balassanian teaches the method wherein the information comprises a URL including suffixes associated with the data traffic (Heddaya, col. 5, line 60 – col. 6, line 50; Balassanian, paragraph 0040-0045).

8. As to claims 8-10, Heddaya-Balassanian teaches the method wherein parsing the information comprises determining whether the suffix associated with the URL indicates one of a plurality of MIME types comprising *.gif, *.jpg, *.pdf, *.mpX, *.htm, and ascii or binary data objects (Balassanian, paragraph 0040-0045).

9. As to claim 11, Heddaya-Balassanian teaches the method wherein selecting one of the plurality of options comprises setting one of a plurality of socket options for the data traffic (Balassanian, paragraph 0034-0035).

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10. As to claims 17 and 18, Heddaya-Balassanian teaches the method wherein the information relate to whether a data object associated with the data traffic is cacheable, and comprises a forced load (Heddaya, col. 5, line 60 – col. 6, line 50; Balassanian, paragraph 0040-0045).

11. As to claim 19, Heddaya-Balassanian teaches a computer program product comprising a computer readable medium having computer program instructions stored therein for implementing the method of claim 16 (Heddaya, col. 5, line 60 – col. 6, line 50; Balassanian, paragraph 0040-0045).

12. As to claims 24 and 25, Heddaya-Balassanian teaches a method wherein the selecting of the plurality of routing options for the data traffic is based on relative network resource expense of data traffic types or wherein the application layer information correlates to a relative size of an object that the request seeks (Heddaya, col. 7, line 64 – col. 8, line 49).

13. Claims 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Heddaya-Balassanian as applied above, and further in view of Dillon, US Pat. No. 6,016,388.

14. As to claim 12, Heddaya-Balassanian teach the invention substantially as claimed. However, Heddaya-Balassanian do not teach the method wherein the plurality of socket options

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include a first link and a second link, the first link socket option being selected for a first type of a data traffic and the second link socket option being selected for a second type of data traffic.

In the same field of endeavor, Dillon teaches said method wherein the plurality of socket options include a first link and a second link, the first link socket option being selected for a first type of a data traffic and the second link socket option being selected for a second type of data traffic (Dillon, col. 1, line 14 – col. 2, line 32).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated socket options as taught by Dillon into the system of Heddaya-Balassanian for the purpose of enabling a more efficient use and application of the various communication channels.

15. As to claim 13, Heddaya-Balassanian-Dillon teaches the method wherein the first and second links comprise land and satellite links, respectively (Dillon, col. 1, line 14 – col. 2, line 32).

16. As to claim 14, Heddaya-Balassanian-Dillon teaches the method wherein the first and second types of data comprise ascii and binary data, respectively (Dillon, col. 1, line 14 – col. 2, line 32).

17. As to claim 15, Heddaya-Balassanian-Dillon teaches a computer program product comprising a computer readable medium having computer program instructions stored therein for implementing the method of claim 1 (Heddaya, col. 3, line 23 – col. 5, line 22; Balassanian,

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paragraph 0040-0045).

Claim Rejections - 35 USC § 102

18. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

19. **Claims 1-7 and 16-25 are rejected under 35 U.S.C. 102(e) as being anticipated by**

Dias et al., U.S. Patent No. 6,317,778.

20. As to claims 1, 16, 20, 21, 22 and 23, Dias teaches a computer-implemented method and a network cache for routing data traffic in a network having a plurality of network layers including an application layer, physical, data link, and network layers, the method comprising:

receiving redirected data traffic at a network cache (Dias, col. 9, lines 1-58);

selecting one of a plurality of routing options for the data traffic with reference to information associated with the network cache, the application layer, or outside of the physical, data link, and network layers (content based routing; Dias, col. 9, lines 28-58 and col. 12, line 42 – col. 13, line 3); and

routing the data traffic according to the selected routing option, wherein the routing includes forwarding the data traffic from the network cache to another network device in the

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network (Dias, col. 9, lines 28-58 and col. 12, line 42 – col. 13, line 3).

21. As to claim 2, Dias teaches the method wherein the data traffic has been redirected from an original destination according to a caching protocol (Dias, col. 9, lines 1-58).

22. As to claims 3 and 4, Dias teaches the method wherein the data traffic comprises a request from a source platform to a destination platform (Dias, col. 9, lines 1-58).

23. As to claim 5, Dias teaches the method further comprising parsing the information associated with the application layer (Dias, col. 12, lines 42-60).

24. As to claims 6 and 7, Dias teaches the method wherein the information comprises a URL including suffixes associated with the data traffic (Dias, col. 12, lines 42-60).

25. As to claims 17 and 18, Dias teaches the method wherein the information relate to whether a data object associated with the data traffic is cacheable, and comprises a forced load (Dias, col. 9, lines 28-58 and col. 12, line 42 – col. 13, line 3).

26. As to claim 19, Dias teaches a computer program product comprising a computer readable medium having computer program instructions stored therein for implementing the method of claim 16 (Dias, Background, col. 9, lines 28-58 and col. 12, lines 42-60).

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27. As to claims 24 and 25, Dias teaches a method wherein the selecting of the plurality of routing options for the data traffic is based on relative network resource expense of data traffic types or wherein the application layer information correlates to a relative size of an object that the request seeks (Dias, col. 9, lines 28-58 and col. 12, line 42 – col. 13, line 3).

Claim Rejections - 35 USC § 103

28. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dias in view of Balassanian, US Pat. Application No. 2005/0021857 A1.

29. As to claims 8-10, Dias teaches the invention substantially as claimed. However, Dias does not explicitly teach the method wherein parsing the information comprises determining whether the suffix associated with the URL indicates one of a plurality of MIME types comprising *.gif, *.jpg, *.pdf, *.mpX, *.htm, and ascii or binary data objects. In the same field of endeavor, Balassanian teaches content based routing of data traffic wherein parsing the information comprises determining whether the suffix associated with the URL indicates one of a plurality of MIME types comprising *.gif, *.jpg, *.pdf, *.mpX, *.htm, and ascii or binary data objects (Balassanian, paragraph 0040-0045).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated the determining the type of document as taught by Balassanian into the system of Dias for the purpose of enabling application of the content routing to various different data types.

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30. Claims 11-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dias-Balassanian as applied above, and further in view of Dillon, US Pat. No. 6,016,388.

31. As to claims 11 and 12, Dias-Balassanian teaches the invention substantially as claimed. However, Dias does not teach the method wherein the plurality of socket options include a first link and a second link, the first link socket option being selected for a first type of a data traffic and the second link socket option being selected for a second type of data traffic.

In the same field of endeavor, Dillon teaches said method wherein the plurality of socket options include a first link and a second link, the first link socket option being selected for a first type of a data traffic and the second link socket option being selected for a second type of data traffic (Dillon, col. 1, line 14 – col. 2, line 32).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have incorporated socket options as taught by Dillon into the system of Dias for the purpose of enabling a more efficient use and application of the various communication channels.

32. As to claim 13, Dias-Balassanian-Dillon teaches the method wherein the first and second links comprise land and satellite links, respectively (Dillon, col. 1, line 14 – col. 2, line 32).

33. As to claim 14, Dias-Balassanian-Dillon teaches the method wherein the first and second types of data comprise ascii and binary data, respectively (Dillon, col. 1, line 14 – col. 2, line

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32).

34. As to claim 15, Dias-Balassanian-Dillon teaches a computer program product comprising a computer readable medium having computer program instructions stored therein for implementing the method of claim 1 (Dias, Background, col. 9, lines 28-58 and col. 12, lines 42-60).

Response to Arguments

35. Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection. Further, as to the aspects of the previous prior art of record relied upon in the present rejection, the applicants argued in substance that the prior art does not teach "routing" in the context of the present application referring to the use of intermediate devices, such as routers, switches, or data caches, and the determination of which "route" to take from device to device.

The examiner respectfully disagrees. Balassanian teaches routing "data traffic" from an external network (WAN) to a gateway interface. The system routes the data to a particular device on the LAN based on the particular type of the incoming data. Also, a user sending a data object does not necessarily have to know the address of the destination device since the gateway device determines the address of the local device to which the data object will be routed to. See Balassanian, paragraph 0048 and the rejection as forth above.

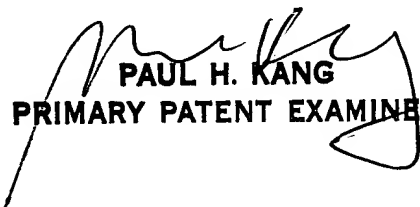
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Conclusion

36. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul H. Kang whose telephone number is (571) 272-3882. The examiner can normally be reached on 9 hour flex. First Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on (571) 272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


PAUL H. KANG
PRIMARY PATENT EXAMINER